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EXAMINER

QUAN, ELIZABETH S

ART UNIT

PAPER NUMBER

1743

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/835,198

Applicant(s)

NICHOLS ET AL.

Examiner

Elizabeth Quan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,9,13,14 and 18-22 is/are pending in the application.
- 4a) Of the above claim(s) 20-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9,13,14,18 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1,3-7,9,13,14 and 18-22 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/13/2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Newly submitted claims 20-22 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:
2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1, 3-7, 9, 13, 14, 18, and 19, drawn to a transfer module, classified in class 422, subclass 103.
  - II. Claims 20-22, drawn to a method for modularly transferring a portion of a high flow rate primary stream to a secondary path, classified in class 436, subclass 180.

The inventions are distinct, each from the other because of the following reasons:

3. Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the process as claimed can be practiced by hand.
4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
5. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

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6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

8. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 20-22 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### *Drawings*

9. New corrected drawings are required in this application because they are manually drawn and details are difficult to see. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

10. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: (120x) as provided in the amended specification of the response filed 7/3/2003. Although the response states that a

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copy of FIG. 2 and five sheets of formal drawings have been enclosed with a requested in red ink to include an indication of a passage at 120x, it appears there be no such drawings included in the response. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Objections***

11. Claims 1, 3-7, 9, 13, 14, 18, 19 are objected to because of the following informalities:

Some of the claims have reference characters while others have none. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

12. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

13. Claims 1, 3-7, 9, 13, 14, 18, and 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It appears that the actuator being constructed to automatically move the shuttle repeatedly **between only said first and second positions** is not disclosed in the immediate specification.

14. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

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15. Claims 1, 3-7, 9, 13, 14, 18, 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is highly unclear which embodiments the Applicant is claiming. There is inconsistent labeling of elements in the drawings. For example, in FIG. 4 the pair of primary passages is not in a single stator. They are aligned with each other in two different stator elements. The pair of secondary passages is not in a single stator. They are aligned with each other in two different stator elements. In FIGS. 5 and 6 the pair of primary stator passages and the pair of secondary stator passages are in a single stator. Additionally, in FIG. 6 the opposite end portions of the aliquot passage are ends of an irregular shaped aliquot passage. In FIG. 4 the opposite end portions of the aliquot passage are the inlet into and outlet out of the aliquot passage; they are in different faces of the rotor.

16. Referring to claim 1, the recitation of **said aliquot passages opposite end portions are each aligned with a different one of said secondary stator passages** is not clear. Is it implying that in the first position the opposite end portions of the aliquot passages are aligned with a primary stator passage and secondary stator passage such that in the second position the opposite end portions of the aliquot passages are aligned with a different secondary stator passage with movement of the shuttle to a second position?

17. Referring to claim 3, the specification does not describe what constitutes the connection of primary passages by the bypass in series and connection of the aliquot passage in parallel with the primary passages.

18. Claims 18, 19 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting

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to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the connection among the large diameter tube and passages and elements of the valve.

***Claim Rejections - 35 USC § 103***

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

21. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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22. Claims 1, 9, 18, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,520,108 to Yoshida et al. in view of U.S. Patent No. 3,885,439 to Stone (in the alternative).

Referring to claims 1, 9, 18, 19, Yoshida et al. disclose a transfer module (60) for passing a small portion of a high flow rate primary stream of dissolved analytes to a secondary path leading to an analyzer (30) for analysis of the analyte (see ABSTRACT; FIGS. 1A, 1B, 2A, 2B, 3, 4A, and 4B). The transfer module (60) comprises a stator (63) and shuttle (61) (see FIGS. 3, 4A, and 4B; COL. 4, lines 59-64). The stator (63) includes a single stator part with a proximal stator face (see FIGS. 3, 4A, and 4B). The stator (63) has a pair of primary stator passages (C') and (D') and at least a pair of secondary stator passages (E'), (F'), (A'), and (B') all open at the proximal stator face (see FIGS. 3, 4A, and 4B; COL. 4, lines 59-68; COL. 5, lines 1-12). The shuttle (61) has a proximal shuttle face adjacent to the proximal stator face (see FIGS. 3, 4A, and 4B). The shuttle (61) has aliquot passages (G,H) with spaced apart opposite end portions lying on the proximal shuttle face and flow through shuttle passage (J) with opposite end portions (see FIGS. 3, 4A, and 4B; COL. 4, lines 59-68; COL. 5, lines 1-12).

The shuttle (61) is movable between the first and second positions relative to the stator (63) (see COL. 4, lines 59-68; COL. 5, lines 1-12). In a first position the opposite end portions of the aliquot passage (H) are aligned with the pair of primary stators passages (C') and (D') and the opposite end portions of the flow through passage (J) are aligned with the pair of secondary stator passages (E') and (F') (see FIG. 4A). The opposite end portions of the aliquot passage (H) are aligned with one of the primary



stator passages (D') and one of the secondary stator passages (E') and the opposite end portions of the flow through passage (J) are aligned with the pair of secondary stator passages (F') and (A') with counterclockwise movement of the shuttle from the previous position to a second position (see FIG. 4B). The opposite end portions of the aliquot passage (H) are aligned with the pair of secondary stator passages (E') and (F') and the opposite end portions of the flow through passage (J) are aligned with the pair of secondary stator passages (A') and (B') with further counterclockwise movement of the shuttle (61) from the position as shown in FIG. 4B. With further counterclockwise movement of the shuttle (61) the opposite end portions of the aliquot passage (H) are each aligned with the pair of secondary stator passages (F') and (A') and the opposite end portions of the flow through passage (J) are aligned with a secondary stator passage (B') and primary stator passage (C') (see FIG. 4B). With even further counterclockwise movement of the shuttle (61) the opposite end portions of the aliquot passage (H) are aligned with the pair of secondary stator passages (A') and (B') and the opposite end portions of the flow through passage (J) are aligned with the pair of primary stator passages (C') and (D'). It is noted that "first position" and "second position" may be arbitrarily assigned to two different positions. Therefore, any two of the positions described in this paragraph may be labeled first position and second position.

Yoshida et al. do not explicitly disclose a powered switching actuator mechanically connected to the shuttle that repeatedly moves the shuttle back and forth between the first and second shuttle positions. Providing mechanical or automatic means to replace manual activity, which accomplishes the same result, is within the skill of a

routinier in the art (*In re Venner*, 120 USPQ 192 (CCPA 1958)). Examiner further points out that the limitation said actuator **being constructed to automatically move said shuttle repeatedly between only said first and second positions** is a method limitation, which is accorded no patentable weight in apparatus claims. Therefore, the actuator need only the capability of performing the function, and such functions are intrinsic to the actuator as they are known to be flexible and programmable to accomplish operations in a specific manner. Furthermore, Stone discloses the use of a stepping motor, which is connected to the shuttle (see COL. 1, lines 65-68; COL. 2, lines 1-7). Stone does not disclose that the motor moves one movement back and forth between shuttle positions per second. However, the limitation **actuator is constructed to repeatedly move said shuttle between said positions at a rate that is on the order of magnitude of one movement back and forth between said shuttle positions per second** is a method limitation, which has no patentable weight in apparatus claims, especially when the prior art teaches or suggests the structural limitations in the claims. Therefore, the actuator need only the capability of performing the function, and such functions are intrinsic to the actuator as they are known to be flexible and programmable to accomplish operations in a specific manner to perform loading, injection, and/or analysis within a certain amount of time. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the valve of Yoshida et al. to use powered means as in Stone (in the alternative) to efficiently rotate the shuttle back and forth between the first and second shuttle positions at a rate that is on the order of magnitude of one movement between shuttle positions per second.

Examiner further points out the added limitations in the preamble have been construed as intended use (see MPEP 2111.02). A recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches or suggest all the structural limitations of the claim. An apparatus claim covers what a device is, not what a device does (see MPEP 2114). Therefore, the recitation in the preamble does not differentiate the claimed apparatus from a prior art apparatus since the prior art teaches/suggests the structural limitations of the claim.

23. Claims 1, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,096,276 to Laursen in view of U.S. Patent No. 3,885,439 to Stone (in the alternative).

Referring to claims 1, 18, Laursen discloses a transfer module for passing a small portion of a high flow rate primary stream of dissolved analytes to a secondary path leading to an analyzer for analysis of the analyte (see ABSTRACT; FIG. 1). The transfer module comprises a stator (26,32) and shuttle (10) (see FIG. 1). The stator (26,32) has a pair of primary passages, which are currently aligned with reactor vessel (4), with the first primary passage beginning at stator element (32) and ending at a surface (28) of the shuttle (10) and second primary passage beginning at surface (22) of shuttle (10) and ending at stator element (26) (see FIG. 1). The stator (26,32) has a pair of secondary passages, which are currently aligned with reactor vessel (3), with the first secondary passage beginning at stator element (32) and ending at a surface (28) of the shuttle (10) and second secondary passage beginning at surface (22) of shuttle (10) and ending at

stator element (26) (see FIG. 1). The shuttle (10) has an aliquot passage with opposite end portions (16,18) (see FIG. 1).

The shuttle (10) is movable between the first and second positions relative to the stator (26,32) (see FIG. 1; COL. 3, lines 35-50). In the first shuttle position the opposite end portions (16,18) of the aliquot passage are each aligned with one primary passage (see FIG. 1). In this position a bypass (49) connects the primary passages in series and aliquot passage in parallel with the primary passages (see FIG. 1). In the second shuttle position or counterclockwise movement of shuttle (10), such that reactor vessel (2) is aligned with the first inlet (41), the opposite end portions (16,18) of the aliquot passage are each aligned with one secondary passage to move a sample of fluid along the primary stream into the secondary path (see FIG. 1). In this position the bypass (49) continues to flow fluid through the primary passages in series.

Laursen does not explicitly disclose a powered switching actuator mechanically connected to the shuttle that repeatedly moves the shuttle back and forth between the first and second shuttle positions. Providing mechanical or automatic means to replace manual activity, which accomplishes the same result, is within the skill of a routineer in the art (*In re Venner*, 120 USPQ 192 (CCPA 1958)). Examiner further points out that the limitation said actuator **being constructed to automatically move said shuttle repeatedly between only said first and second positions** is a method limitation, which is accorded no patentable weight in apparatus claims. Therefore, the actuator need only the capability of performing the function, and such functions are intrinsic to the actuator as they are known to be flexible and programmable to accomplish operations in a specific

manner. Furthermore, Stone discloses the use of a stepping motor, which is connected to the shuttle (see COL. 1, lines 65-68; COL. 2, lines 1-7). Stone does not disclose that the motor moves one movement back and forth between shuttle positions per second.

However, the limitation **actuator is constructed to repeatedly move said shuttle between said positions at a rate that is on the order of magnitude of one movement back and forth between said shuttle positions per second** is a method limitation, which has no patentable weight in apparatus claims, especially when the prior art teaches or suggests the structural limitations in the claims. Therefore, the actuator need only the capability of performing the function, and such functions are intrinsic to the actuator as they are known to be flexible and programmable to accomplish operations in a specific manner to perform loading, injection, and/or analysis within a certain amount of time. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the valve of Laursen to use powered means as in Stone (in the alternative) to efficiently rotate the shuttle back and forth between the first and second shuttle positions at a rate that is on the order of magnitude of one movement between shuttle positions per second.

Examiner further points out the added limitations in the preamble have been construed as intended use (see MPEP 2111.02). A recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches or suggest all the structural limitations of the claim. An apparatus claim covers what a device is, not what a device does (see MPEP 2114). Therefore, the recitation in the preamble does not

differentiate the claimed apparatus from a prior art apparatus since the prior art teaches/suggests the structural limitations of the claim.

24. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,096,276 to Laursen and U.S. Patent No. 3,885,439 to Stone (in the alternative), as applied to claims 1, 2, 5, and 9, and further in view of U.S. Patent No. 4,957,008 to Proni et al.

Referring to claim 3, Laursen in view of Stone (in the alternative) does not explicitly disclose that the bypass has a large enough cross-section to pass fluid therethrough at a flow rate that is a plurality of times the flow rate through the aliquot passage for the same pressure drop across them. It appears the Applicant is intending to recite that the bypass has a larger cross-section than aliquot passage. It is very well known to increase the cross-section of a channel or bypass to provide greater flow through it. Proni et al. show a bypass (50) connecting two primary passages (see FIG. 5). The bypass (50) is much larger than any of the aliquot passages on element (26). Therefore, it would have been obvious to modify the valve of Laursen in view of Stone (in the alternative) to provide a bypass larger in cross section than the aliquot passage as in Proni et al. to provide greater flow.

25. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,096,276 to Laursen and U.S. Patent No. 3,885,439 to Stone (in the alternative), as applied to claims 1, 2, 5, and 9, and further in view of U.S. Patent No. 4,836,038 to Baldwin and/or U.S. Patent NO. 5,447,691 to Sanuki.

Referring to claim 7, Laursen in view of Stone (in the alternative) discloses a source of sample and reagents connected with primary and secondary stator passages.

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Laursen does not disclose the pressure of the liquids and to which passages they are connected with. Laursen also does not explicitly disclose an analyte receiver including a plurality of container for receiving analytes. Baldwin discloses a source of high pressure fluid (18) including analytes in a mobile phase fluid connected to a first primary stator passage (70), an analyte receiver (82) with a container for receiving the analytes that is connected to a second primary stator passage (78), and a source of pressurized carrier fluid connected to the first secondary stator passage (74), and an analyzing instrument (52) connected to the second secondary stator passage (76) to receive a sample of the analytes in the largely carrier fluid from the aliquot passage (see FIG. 4). Baldwin '038 does not disclose a plurality of containers to receive the analytes. However, it is very well known to use a plurality of containers to collect analytes if the first container is filled. Sanuki discloses a plurality of containers for receiving analytes to collect wastes at different points of the process or instrument. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the valve of Laursen in view of Stone (in the alternative) to provide the recited configuration as in Baldwin and/or Sanuki as it is very well known to provide the configuration for accurately and automatically loading and injecting samples.

26. Claims 3, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,520,108 to Yoshida et al. and U.S. Patent No. 3,885,439 to Stone (in the alternative), as applied to claims 1, 2, and 9, and further in view of U.S. Patent No. 3,404,780 to Jungner and/or U.S. Patent No. 5,083,742 to Wylie et al. and/or U.S. Patent No. 4,506,558 to Bakalyar.

Referring to claims 3, 13, and 14, Yoshida et al. in view of Stone (in the alternative) do not disclose a bypass. However, Jungner discloses a bypass (6) connecting a pair of primary stator passages and opening at the proximal stator face. Wylie et al. show a bypass connecting a pair of primary stator passages (see FIGS. 6 and 7). Bakalyar also shows a different type of bypass (46) connecting a pair of primary passages in terms of flow (see FIGS. 2 and 3). The bypass (46) opens at the proximal face of the stator element. Since it is desirable for two streams to mix, for example, a mobile phase fluid and sample, without contamination of the sources, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the valve of Laursen in view of Stone (in the alternative) to provide a bypass connecting a pair of primary stator passages as in Junger and/or Wylie et al. and/or Bakalyar to mix two different streams without contaminating the sources.

### ***Response to Arguments***

27. Applicant's arguments with respect to claims 1, 3-7, 9, 13, and 14 have been considered but are moot in view of the new ground(s) of rejection.

28. Applicant argues that the prior art does not relate to passing a small portion of a continuous high flow rate primary stream along a continuous secondary stream. Applicant further argues that the prior art is not related to splitting a primary stream to flow a small portion of it along a secondary stream. Applicant further argues that the prior art does not have any continuous secondary stream. Applicant further argues that the prior art does not show or mention an actuator connected to the valve for automatically moving the rotor of the valve repeatedly back and forth.



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29. Examiner points out that these limitations are construed as intended use and do not further define the structure of the invention. Since the prior art includes all positively recited structure, it is deemed that the intended use as recited in the preamble is inherent/intrinsic to the prior art invention. It is emphasized that such intended use limitations are accorded no patentable weight in apparatus claims. Furthermore, it may be interpreted that the passage through the stator allows for the flow of the continuous primary stream, which travels through the passage through the rotor as the continuous secondary stream. Examiner emphasizes that Applicant has not claimed structure relating to splitting a primary stream to a flow a small portion of it along a secondary stream. The independent claims has a stator with a pair of primary stator passages and a pair of secondary stator passages and the shuttle has the aliquot passage with opposite end portions in which each of the end portions may be aligned with one or more primary stator passages or one or more secondary stator passages in certain positions of the shuttle. Both Yoshida et al. and Laursen have these elements even with the passages in certain alignment with each other with a turn of the shuttle. The prior art has a continuous secondary stream. Sample flows through a passage as the continuous primary stream and into another passage as the continuous secondary stream. During each of these streams, flow is characterized as continuous. Examiner notes that new claim 18 characterizes the primary stream as that flowing through the large diameter tube and the secondary path as that of any primary or secondary passages. This appears to contradict the statements of the applicant, in which it has implied that both the primary and secondary paths are within the valve. Additionally, Examiner has addressed the new limitation of an automatic actuator as well as those added into the dependent claims.

***Conclusion***

30. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Quan whose telephone number is (703) 305-1947. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (703) 308-4037. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Elizabeth Quan  
Examiner  
Art Unit 1743

  
Jill Warden  
Supervisory Patent Examiner  
Technology Center 1700